

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. : 09/472,134
Inventor : GIROUARD, Bruno et al.
Title : "Snowmobile"
Filing Date : December 23, 1999
Art Unit : 3611
Examiner : BOEHLER, Anne Marie M.
Confirmation No. : 8367
Our File No. : 1058859

**DECLARATION UNDER 37 C.F.R. §1.132
OF
JEAN-YVES LEBLANC**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Jean-Yves Leblanc, hereby declare that:

Personal Information of Declarant

[0001] I am the Director of Product Safety for Bombardier Recreational Products Inc. (hereinafter "BRP"), the assignee of the above-identified application.

[0002] BRP is a divestiture of Bombardier Inc., the previous assignee of the above-identified application.

[0003] I have read and understand the above-identified patent application, including the pending claims.

[0004] I have read and understand the following documents: Yasui et al. (U.S. Patent 4,848,503); Marier et al. (U.S. Patent 5,660,245); Stacy (US Patent 3,692,130); "The seated man

(Homo Sedens) The seated work position. Theory and practice” by A.C. Mandal (“Mandal”); and “The Complete Snowmobile Repair Handbook” by Paul Dempsey (“Dempsey”). In the case of Mandal and Dempsey, I have read only the portions of these documents provided by the United States Patent and Trademark Office.

[0005] Before being the Director of Product Safety, I was the Director of Intellectual Property and Product Safety for BRP from November, 2005 to August, 2008.

[0006] Before working for BRP, I was the Director of Quality and Operations for Bombardier-Nordtrac Oy, a wholly owned subsidiary of BRP, from November, 2002 to October, 2005. Bombardier-Nordtrac Oy designs, manufactures and sells snowmobiles.

[0007] Before working for Bombardier-Nordtrac Oy in November, 2002, I worked for Bombardier Inc.’s Recreational Products division from November, 1992 to October, 2002.

[0008] I was the Director of Engineering and Research and Development for snowmobiles from November, 1992, to April, 2000.

[0009] I was the Director, Product Safety Engineering from May, 2000 to October, 2002.

[0010] Although certain portions of the Exhibits are highlighted and/or referred to in the following discussion, I have reviewed each of the Exhibits attached hereto in their entirety.

Background Information on Snowmobile Manufacturers

[0011] Recreational snowmobiles were first manufactured and sold in the 1950’s.

[0012] There are currently four major designers and manufacturers of snowmobiles.

[0013] BRP, of Valcourt, Quebec, Canada, manufactures and sells snowmobiles under the Ski-Doo® and Lynx® brand names. For this reason, BRP is often referred to in magazines that report on snowmobiles and snowmobiling as Ski-Doo.

[0014] Polaris Industries (hereinafter “Polaris”) of Roseau, Minn., USA is another designer and manufacturer of snowmobiles.

[0015] Arctic Cat Inc. (hereinafter “Arctic Cat”) of Thief River Falls, Minn., USA, is also a designer and manufacturer of snowmobiles. Arctic Cat is often referred to in snowmobile magazines as “Cat” or “AC”.

[0016] Yamaha Motor Corporation, U.S.A. (hereinafter “Yamaha”) of Cypress, Calif., USA, is another designer and manufacturer of snowmobiles.

[0017] The four major designers and manufacturers of snowmobiles are often referred to as OEMs (original equipment manufacturers) in magazines that report on the snowmobile industry.

Background Information on Prior Art Snowmobile Design

[0018] A major innovation in the design of snowmobiles occurred in the 1960's, as described in the Article "TRACK SUSPENSIONS TODAY – THE ADJUSTABLES – PART I: ORIGIN AND NOMENCLATURE," published in the Fall, 2002 issue of SUPERTRAX INTERNATIONAL magazine, and attached as Exhibit A. As stated in this Article, the development of the skid frame was "a key suspension component for the flotation track that permitted an amazing amount of balance, traction and control – essential qualities in a *recreational vehicle*." (Italic emphasis in original.) As also discussed, in 1975, a skid frame having a front trailing arm and a rear trailing arm was introduced. The torque effect of engine power through the track created a throttle sensitive weight shift factor on the front trailing arm that provided balance to the snowmobile frame. The free movement of the front trailing arm, however, reduced the quality of the ride. This problem remained unsolved throughout the 1980's and early 1990's. In 1993, a coupler was introduced to connect the functions of the front and rear trailing arms. As further described in Exhibit A, the coupler "has since become a benchmark for the prototypic skidframe and nearly all suspensions pictured here display the feature in one form or another. The coupler allows the front arm torque effect to continue (mostly) unaffected while it links the two trailing arms for dealing with ride and comfort issues."

[0019] Exhibit A demonstrates the importance of the snowmobile suspension to the quality of the ride experienced by the rider. As stated in Exhibit A, "Of all off-road vehicles, the snowmobile presents the greatest challenge to suspension designers." As also stated in Exhibit A, "Adjustments to suspension are rarely if ever discussed by users of 4WD trucks, ATVs and dirt bikes, but adjustability is the first line of defense in snowmobiling and a myriad of detail adjustments have found their way into the sport to satisfy this need."

[0020] Since the 1960's, snowmobile designers and manufacturers have focused on the suspension to improve the quality and comfort of the ride. The focus on the suspension as a way of improving ride comfort and quality is demonstrated by the brochures of the four major snowmobile manufacturers, as will be discussed below.

BRP's REV Snowmobile and BRP's Present Patent Application

[0021] In model year (MY) 2003, BRP offered for sale snowmobiles constructed according to the claimed invention, as I understand it.

[0022] Snowmobiles constructed according to the claimed invention were called "REV" by BRP, short for "revolutionary." It is my understanding that all BRP snowmobiles referred to as "REV" snowmobiles were constructed according to at least some aspects of the claimed invention.

[0023] Snowmobiles constructed according to the claimed invention are often referred to as REV or Rev in magazines that report on the snowmobile industry.

[0024] Prior to its offer for sale in MY 2003, BRP introduced the REV at a snocross event in November, 2001.

[0025] As stated on page 125 of "SKI-DOO RACING SLEDS 1960-2003", by Philip J. Mickelson, the relevant portion of which is attached as Exhibit B, "Ski-Doo shocked the snowmobile industry when they unveiled a radically new design for the Pro Open class at the 2001 WSA event at Spirit Mountain in Duluth, Minnesota. Built in its initial year, 2002, as an open class snow-cross race sled, it was to become the REVolution of Ski-Doo's model line in 2003."

[0026] As stated on page 126 of Exhibit B, "The unveiling of the REV on the racetrack certainly showcased its abilities and offered engineers some wonderful durability insight. Once again, racing proves to be a valuable test bed for new concepts."

[0027] On pages 2-3 of The BRP MY 2003 brochure, attached as Exhibit C, BRP described the design approach that led to the development of the REV. The brochure states,

After literally going back to the drawing board, we realized that the first step in all snowmobile design had always been wrong. That's because to design the best sled you don't start with nuts and bolts. You start with joints and muscles. Then put riders in a position that maximizes comfort, active ergonomics and kinetics. In other words, we put you in the most comfortable, most active position possible before we even started thinking about aluminum and plastic. But once we approached the mechanics needed to accommodate these ergonomics we came to a shocking discovery. Traditional rider positions on all sleds missed the perfect position by 12 inches! What's more, the hip joint has always been positioned parallel to, or below the knee joint, requiring

unnecessary effort just to activate leg muscles to stand or absorb bumps. Now, having completely changed the way riders and snowmobiles interact, we've built a revolutionary new MX Z® snowmobile that we're certain will change the industry forever. The new rider-perfect ergonomics are evident the moment you set foot on the running boards. Seated, you're positioned directly at the sled's center point, with the center of gravity dropped even lower beneath you.

[0028] BRP expanded the REV platform to other snowmobiles for MY 2004. In the BRP MY 2004 brochure, attached as Exhibit D, on page 12, the MX Z Renegade, a cross-over or hybrid snowmobile, is described as "built on the same REV platform that has been tearing up the snocross circuit." On page 14, the Summit-REV, a mountain snowmobile, is described. As stated in Exhibit D, "[M]oving the heaviest part of the snowmobile, the driver, 10" forward, the REV platform positions eighty percent of the sled's riding mass right under the driver. This dramatically improves handling and responsiveness [...]." The GSX snowmobile was also redesigned to include the REV platform. As stated on page 20 of Exhibit D, "At the heart of the performance side of the GSX is the new REV™-X chassis. Its reinvented ergonomics and centralized mass, along with extremely lightweight design deliver control beyond compare."

[0029] In MY 2005, BRP further expanded the REV platform. In the BRP MY 2005 catalog, attached as Exhibit E, BRP describes the GTX snowmobile. The brochure states, "In addition to all the goodies this year on the performance machines there's a special premier in trail cruising. The brand new GTX snowmobile introduces the REV platform to full time touring. It also introduces the first 3-passenger machine to snowmobiling. With the driving position slid 5 inches further back than other REV platform performance sleds, uncompromised comfort, supreme handling, and sleek new styling are yours with this new trail trendsetter."

[0030] The claimed invention, as I understand it, reconfigures the components of the snowmobile, so that the rider(s) are positioned to achieve improved ride comfort and quality. This reconfiguration and rider positioning is sometimes referred to in snowmobile magazines as "rider forward" or "driver forward".

[0031] For example, claim 1 recites, amongst other features, a snowmobile having a first center of gravity without the standard rider and a second center of gravity with the standard rider in the standard position. The distance between a vertical line passing through the first center of gravity and a vertical line passing through the second center of gravity is between 0 and 14 cm.

[0032] As another example, claim 10 recites that a distance between a vertical line passing through a forward-most drive track axle and a vertical line passing through the center of gravity of the rider in the standard position is between 15 and 65 cm.

[0033] By reducing the distance between the first and second centers of gravity compared to conventional snowmobiles, and by reducing the distance between a vertical line passing through a forward-most drive track axle and a vertical line passing through the center of gravity of the rider in the standard position as compared to conventional snowmobiles, the effect of bumps and uneven terrain on the rider is reduced because the moment arm to the rider is reduced.

[0034] Claim 40 recites a snowmobile including, amongst other features, a steering device disposed on the frame and spaced forward of the seat such that, when the rider grasps the steering device in the standard position, the rider's torso is tilted toward the steering device and the rider's arms extend toward the steering device with the rider's elbows substantially over the rider's feet.

[0035] As I read them, claims 44 and 45 also recite this inventive feature.

[0036] Snowmobiles constructed according to, for example, claims 40, 44 and/or 45, permit the rider to lift off the snowmobile seat in anticipation of bumps and uneven or rough terrain because positioning the rider's elbow's substantially over the rider's feet allows the rider to use his/her leg muscles to lift his/her weight off the seat, instead of requiring the rider to use his/her arm muscles to lift off the seat by grasping the steering device.

[0037] Other inventive configurations of snowmobiles constructed according to the claimed invention, as I understand it, are recited, for example, in claim 40. Claim 40 recites that an angle α formed between a line passing through a seat position and a steering position and a line passing through the seat position and the footrest position, for a standard rider in a standard position, is between 63° and 152° . An angle β formed between a line passing through the footrest and steering positions and a line passing through the footrest and seat positions is between 16° and 84° for a standard rider in a standard position. An angle γ formed between a line passing through the footrest and steering positions and a line passing through the steering and seat positions is between 11° and 42° . These angles, and other angles and/or distances between various snowmobile components and/or the rider as set forth in the pending claims define what has become to be known as the "rider forward" position.

Factual Evidence

[0038] It has been explained to me by counsel for BRP that there are various factors that may be considered by the U.S. Patent Office in determining the patentability of a claimed invention. As I understand it, some of these factors include: a long felt need and failure of others; praise by others in the industry; skepticisms of experts; commercial success; and copying by others.

Evidence of Long-Felt Need

[0039] As will be explained in detail below, Exhibits F-Y demonstrate a long-felt need in the snowmobile industry for improvements in the comfort and quality of the ride, including the ride over uneven terrain, ungroomed trails, and moguls. Since the 1960's, and prior to the introduction of the REV, the efforts of major snowmobile designers and manufacturers, including BRP, to improve the comfort and quality of the ride were focused on improving the suspension of the snowmobile. Snowmobile brochures and advertisements promoted mechanically complex suspension systems such as coupled and tunable suspension systems, as well as suspension systems that provided increased travel while still keeping the rider's center of gravity low, as providing an improved ride quality compared with the systems of competing OEMs. Based on the OEMs' continual attempts to one-up each other and advertise more sophisticated suspension systems with increased travel, I conclude that even the most advanced suspension systems did not completely resolve the issue of rider comfort, and there was a need in the industry for further improvement.

Polaris

[0040] In the Polaris MY 2000 brochure, attached as Exhibit F, Polaris describes its Indy 600 XC SP snowmobile as including "our Indy XC-10 front suspension and 10.2" of rear travel combined with our exclusive Position Sensitive Fox™ rear shock." The brochure also states, "Tipped-in trailing arms help you ride with more control and a lot more confidence. Together with the XC-10 suspension, they put more of the ski in contact with the trail while cornering." The brochure also describes the Polaris 45th Anniversary Indy 700 XC Deluxe snowmobile as including the XTRA-12 suspension. The brochure states, "Plush XTRA-12 suspension is the way to ride in comfort. It gives you a full 10" of travel up front and 12" fully coupled in the rear."

[0041] On pages 10 and 11 of the Polaris MY 2001 brochure, attached as Exhibit G, Polaris describes their EDGE™ chassis with respect to their Indy 800 XC SP and Indy 700 XC SP snowmobiles. Page 10 of Exhibit G states, regarding the 800 XC SP snowmobile, that “EDGE gives you an industry leading 13.9” of rear travel and our exclusive Position Sensitive Fox™ rear track shock. Up front, EDGE has 10.3” of travel, with Controlled Roll Center and a wide 42.5” ski stance for greater stability.” Page 11 of Exhibit G states, regarding the 700 XC SP snowmobile, that “Its lighter weight EDGE™ chassis gives you a stable 42.5” ski stance, 10.3” of travel up front, an industry leading 13.9” of rear travel and Fox™ IFS gas shocks with a Threaded Pre-load Adjustment, so you can fine tune your ride.” Page 13 of Exhibit G describes Polaris’s Indy 500 XC snowmobile and states, “The nimble 500 XC also gives you the EDGE™ chassis this year. It gives you 10” of travel with our Controlled Roll Center (CRC) and stable 42.5” ski stance. You can also fine tune your sled’s handling with our exclusive Compression Adjustable Indy Select IFS shocks up front. Under your machine, there’s an industry-leading 13.9” of rear travel and our exclusive Position Sensitive Fox™ rear track shock.”

[0042] Page 17 of the Polaris MY 2002 brochure, attached as Exhibit H, describes the Indy 700 Classic snowmobile. The brochure states, “Its rear suspension is now the legendary Fast® M10 – with its patented biased coupling, gas shocks, Advanced Ride Control and 14” of bone-resting rear end travel.” Page 18 of Exhibit H describes the Indy 600 Classic snowmobile and states, “The Indy 600 Classic travels on the renowned Fast® M-10 rear suspension with gas shocks – it allows the front and back of the rear suspension to react simultaneously to changes in terrain.”

[0043] The Polaris MY 2003 brochure, attached as Exhibit I, describes rear suspensions. The PRO X is described as “[d]esigned for the performance rider who prefers a firmer set-up, the PRO X is among the lightest rear suspensions in the sport and provides 13.9” of rear axle travel.” With respect to the EDGE suspension, the brochure states, “The fully coupled design moves the front and rear torque arms in unison, so the whole suspension reacts as soon as your sled encounters a bump, reducing kickback. The EDGE rear suspension makes most stutter bumps disappear and delivers a smooth ride in all conditions.” With respect to the Fast® M-10 suspension, the brochure states, “The Fast® M-10 with standard gas shocks provides unprecedented riding comfort to eat up the moguls and smooth out the bumps. With a very

precise degree of tuneability through simple adjustments you can easily change the ride to fit your riding preference.”

[0044] Page 6 of the Polaris MY 2004 brochure, attached as Exhibit J, states, “In suspension, every inch counts. Polaris performance sleds deliver the greatest rear suspension travel and adjustability in their class, for a smooth ride in all conditions. Period.” Page 10 of the brochure states, “Our flagship touring sleds have a class leading 15.2” of suspension travel. That’s up to 30% more than some competitive machines.” Page 11 of the brochure states, “With up to 22% more rear suspension travel than competitive machines, Polaris trail luxury sleds are able to handle rough trails easier, and deliver maximum comfort on every ride.”

[0045] Page 22 of the Polaris MY 2005 brochure, attached as Exhibit K, states, “The EDGE rear suspension features a Ryde FX High Pressure Gas front-track shock and Fox® Position Sensitive rear-track shock. The Fox® PS3™ shock with remote reservoir (available during Snow Check Select) senses shaft position and velocity, and responds with the exact amount of dampening. It automatically softens in the ‘ride zone,’ yet firms up instantly to avoid bottoming out or severely rebounding over big bumps. Ride comfort is outstanding, with nearly 14” of rear-axle travel that serious riders demand.”

Arctic Cat

[0046] The Arctic Cat MY 2000 brochure, attached as Exhibit L, describes Arctic Cat Technology (ACT™). Exhibit L states, “The original slide-rail suspension, with 35+ years of refinement. Today this ACT exclusive is called the FasTrack® Long-Travel Rear Suspension System and it’s on every full-sized model we make. Another Arctic Cat exclusive. Our Extra Travel Tunnel (ETT™) is on most Cats in 2000. It adds 2 in. of suspension travel while keeping your center of gravity low for improved comfort and handling.” Page 6 of Exhibit L states, “What about the bumps? All of our triples exceed here, too. A whopping 13.5 in. of rear suspension travel is why. Here’s how: Our FasTrack Long-Travel Rear Suspension System with Extra Travel Tunnel (ETT) and Torque Sensing Link (TSL) keeps your center of gravity low while taking the bumps out of the trail.”

[0047] The Arctic Cat MY 2001 brochure, attached as Exhibit M, on page 11, states, “Likewise, in back, you’ll find our FasTrack Long-Travel Rear Suspension System with Extra Travel Tunnel and Torque Sensing Link (TSL). This package gives you the best of both worlds,

a plush – dare we say luxurious – ride that still feels plush after 100+ miles of trail, and a low center of gravity to help you take on the twisties with the best of them.”

[0048] In MY 2002, Arctic Cat introduced a new rear suspension. As described in the Arctic Cat MY 2002 brochure, attached as Exhibit N, page 19 states, “Our new Smart-Ride Suspension continuously adjusts to changing trail conditions to give you a plush ride – even if the trail is full of stutter bumps.”

[0049] Page 10 of the Arctic Cat MY 2003 brochure, attached as Exhibit O, states, regarding the Smart-Ride™ Suspension, “Computerized shock absorbers that make 1,000 adjustments per second are the brains of our exclusive Smart Ride Suspension. Found on select models, this new skid sets an entirely new standard for plush riding.” Page 10 of Exhibit O also states, regarding the FasTrack® Long-Travel Rear Suspension System, “With Extra Travel Tunnel™ (ETT) and Torque Sensing Link™ (TSL), it creates more suspension travel for extra comfort, a lower center of gravity for better handling, and better responsiveness during acceleration.”

[0050] On page 30 of the Arctic Cat MY 2005 brochure, attached as Exhibit P, Arctic Cat states, “A comfortable ride originates at the rear suspension. Arctic Cat touring machines offer a proven setup including a Ryde FX™ 2-in. large-body rear shock absorber and fiberglass overload springs.”

Yamaha

[0051] The Yamaha MY 2000 brochure, attached as Exhibit Q, describes Yamaha’s VMAX Deluxe series snowmobiles. Exhibit Q states, “All-new single-point, Easy-Adjust rear suspension allows driver to calibrate both shock damping and spring rates to trail conditions and/or individual riding style. Independent front suspension features 9” of travel, while ProAction Plus rear suspension provides a plush, industry-leading 11.5” of usable travel for an incomparably comfortable ride.”

[0052] The Yamaha MY 2001 brochure, attached as Exhibit R, describes its SX^R series snowmobiles. Exhibit R states, “Aggressive drivers wanted: The SX^R’s rear suspension is all trail-taming business, featuring rebuildable, aluminum-body KY8 gas shocks, providing 11.5” of travel, multi-rate springs, and single-point, Easy-Adjust damping and spring rate adjustability for outstanding pitch control and weight transfer over the roughest terrain.”

[0053] Yamaha introduced its SXViper snowmobile in MY 2002. Yamaha's MY 2002 brochure, attached as Exhibit S, describes the SXViper as "positively the nastiest big-bump sled ever created." According to Yamaha, the SXViper includes a "specially designed, long-travel suspension – featuring high-pressure gas shocks, multi-rate springs and an adjustable control rod – front and back."

[0054] Yamaha's MY 2003 brochure, attached as Exhibit T, describes the SX 600R snowmobile. Exhibit T states, "You love playing in the rough stuff, so you need a sled that's as tough and reliable as it is skillful in what's commonly known as ungroomed terrain. You need the SX 600R®. With potent, liquid-cooled, 600cc triple power nestled inside a lightweight, super-rigid ProAction System® chassis with bump-eating suspension [...]."

[0055] Yamaha continued to develop the rear suspension of its snowmobiles in MY 2004. The Yamaha MY 2004 brochure, attached as Exhibit U, states, "New ProAction rear suspension features a new variable-rate shock absorber design that puts power to the ground controllably and comfortably."

[0056] The brochure for Yamaha's MY 2005 snowmobiles, attached as Exhibit V, discusses the five suspensions systems available. The brochure states, "The versatility of the adjustable rear suspension systems from Yamaha simplifies the process of finding the ideal snowmobile for your riding style."

[0057] For MY 2006, Yamaha introduced two new snowmobiles, the Apex and the Attak. The Yamaha MY 2006 brochure, attached as Exhibit W, states, "Take your pick of four refined rear suspensions."

BRP

[0058] BRP has also continued development of snowmobile suspensions to improve ride quality and comfort. Page 9 of the BRP MY 2000 brochure, attached as Exhibit X, states, "Perhaps you're a ditch banger. Or a mountain climber. Or maybe just a smooth trail cruiser. However you like to ride, we've got the suspension you need to get the maximum fun out of your sled."

[0059] The BRP MY 2002 brochure, attached as Exhibit Y, describes the SC-10™ III suspension. The brochure states, "The lightweight SC-10 III suspension, with 3 additional inches of travel, is fully coupled for pulse-quickening handling and mogul munching

performance. It provides greater mid-stroke comfort while resisting bottoming out on large bumps.”

[0060] In my opinion, prior to the introduction of the REV snowmobiles constructed according to the claimed invention, as I understand it, and based on my understanding of Exhibits F-Y, there was a failure of others in the snowmobile industry to recognize that significant improvements in the comfort and quality of the ride could be achieved by configuring the components of the snowmobile, including the position of the rider(s), so that the components of the snowmobile, as well as the rider(s), are positioned closer to the center of gravity of the snowmobile so that the effects of bumps and uneven terrain on the rider(s) are reduced.

[0061] Exhibit Z, “TEST TRACKS”, from the October, 2003 issue of AMERICAN SNOWMOBILER magazine, discusses the effects of the rear suspension system and the REV rider positioning on ride comfort and quality. “The Rev from Ski-Doo reflects a completely new thought process when it comes to rider position. Everything about the rider-forward design is new. But all components on the Rev aren’t. For example, even with 13-inches of travel, the SC-10 III was an adequate, but not great suspension on the traditional chassis MXZ. Incorporated into the Rev, the rear suspension has become exceptional, with a few tweaks. Did the suspension tuners get that much brighter? No, the Rev’s rider forward positioning places the rider’s butt ahead of the worst bump action. [...] Frankly, because of this positioning, Ski-Doo could probably get away with an old-fashioned bogie wheel suspension.”

Evidence of Skepticism and Praise by Others in the Industry

[0062] Since the introduction of the REV snowmobiles constructed according to the claimed invention, as I understand it, the REV snowmobiles have received a considerable amount of praise from many in the snowmobile industry, despite some initial skepticism and criticism, and have been recognized in the snowmobile industry as an innovative and revolutionary design, and the rider positioning of the REV has been recognized as providing improved ride comfort and quality compared to other models of snowmobile.

[0063] Exhibit AA, “A NEW REVolution”, from the March, 2002 issue of SNOWGOER magazine, states, “For years, we’ve seen snowmobiles gradually evolve. [...] The pace of change has been constant, but there haven’t been many huge steps. Even new chassis designs are

usually based on previous chassis. But the aptly named REVolution chassis from Ski-Doo is different. It breaks the mold, changing the way riders sit on and ride their sleds.”

[0064] Exhibit AA also states, “With the new REV chassis, Ski-Doo engineers broke out of the ergonomics box, which dictates where and how a driver sits. For years, snowmobile riders have had their butts seated over the rear suspension’s rear arm, their legs stretched forward and their feet in angled footwells. But the sport has changed. Increasingly, riders stand at times, allowing their legs to absorb energy from nasty trail craters while gaining leverage over the sled. Yet no snowmobile had ever been designed for this new riding style – until now. With the REV chassis, the driver sits 12 inches farther forward than conventional designs. The driver’s legs bend at a 90-degree angle at the knees, with feet flat on the running boards and toes tucked under a toe hold.”

[0065] Exhibit AA further states, “With the forward seating position and legs at a 90-degree angle, standing up when encountering a bump was easy. Riders will use muscles differently on the REV than on other sleds.”

[0066] Exhibit BB, “2000 Mile Test – 2002 Ski-Doo MX Z REVolution (Prototype)”, from the April, 2002 issue of SNOWTECH magazine, states, “SnowTech magazine has been evaluating a factory prototype REV (serial # 000004) for over 2000 miles this winter, and we’re here to tell you this sled will forever change the way many of us ride. In the case of the REV, it appears the design team that worked on this project was willing to try something very new and different.”

[0067] Exhibit BB also states, “The basic concept is simple and valid; the rider is the single heaviest component of the machine/rider combination. Moving the rider 12” forward has a far greater effect on centering the mass and reducing the moment of inertia that [sic] any component relocation or re-design.” Exhibit BB concludes, “The exclusive forward-riding position eliminates upper body fatigue and routes the bump impacts to your legs instead of your back. Most anyone from a novice to an expert will instantly recognize the ease of riding and increased fun-factor while on a REV.”

[0068] Exhibit CC, “MOTORHEAD – The New Tangible”, from the Fall, 2002 issue of SUPERTRAX INTERNATIONAL magazine, states, “ For sure, moving the rider into a more upright and forward position set the REV apart from all other current snowmobile designs. This

riding position is, in our estimation, fully acceptable and preferred by about 85% of the people we let sample our limited build REV last winter. This confirmed our belief the REV is no sliver-wide market sled. Almost without exception, the new riding position captured the imagination of snowmobilers on their very first sampling.”

[0069] Exhibit DD, “Birth of the REV – Outside the Box and Into History”, by C.J. Ramstad, from the December, 2002 issue of SUPERTRAX INTERNATIONAL magazine, describes the development history of the REV. Exhibit DD concludes, “Hailed as a milestone by many, the REV will write history in snowmobiling for many reasons beyond its unique design, ergonomics and appearance. The path to production was a unique one reflecting a singular drive by people at Bombardier to get outside everything conventional in snowmobiling and, in the process, create something worthy of the title ‘advanced concept.’”

[0070] Exhibit EE, page 35, from the December, 2002 issue of SNOW GOER magazine states, “The best thing is little shock is transmitted to the rider. The way the chassis and the suspension work together, combined with the centralized riding position, makes the bumps all but disappear. The REV stays straight and level through the rough stuff, too.”

[0071] Exhibit FF, an advertisement for the MY 2003 REV snowmobile, contains numerous quotations from various writers for snowmobile magazines. C.J. Ramstad from CITY SLEDDER magazine is quoted: “The sled is technically fascinating, but the startling new ergonomics are what makes the REV such a quantum change for snowmobiling.”

[0072] Exhibit GG, “Preview 2004 – Ski-Doo – Driven To Change – Ski-Doo Deepens Their Commitment to the REVolution”, from the March, 2003 issue of SUPERTRAX INTERNATIONAL magazine states, “Our sense is about 15 percent of the people we’ve put on our press REVs have issues with either the ergonomics or the overall feel of the sled when it’s ridden. The other 85% are bananas about the REV and will never go back to a sit down type snowmobile.” Exhibit GG also states, “Certainly some will say Ski-Doo has gone too far with the REV and left themselves no room for a legion of buyers who want a sit-down snowmobile. Maybe that’s a valid point, maybe it isn’t. Here’s what we think. The REV is quickly becoming easier to ride for a broader group of buyers.”

[0073] Exhibit HH, “WHAT WAS RIGHT, WHAT WAS WRONG FOR 2003”, from the March, 2003 issue of SUPERTRAX INTERNATIONAL magazine, states, “[W]hile the REV

was accepted with anticipation, it had a long road ahead of itself making believers out of us. The proof is truly in the riding and Ski-Doo needed only to send us on our way to show us the benefits of the REV's forward riding position. Never has a snowmobile made such short work of the roughest trails."

[0074] Exhibit II, "Welcome To The Future – A new revolution", from the November, 2003 issue of SNOWEST magazine, states, "Putting the rider in a more effective ergonomic position makes the Rev easier to maneuver while boondocking and better isolates the rider from the bumps on the trail." Exhibit II concludes, "I know it sounds like I'm exaggerating when I describe its characteristics, but it's no flash in the pan. The Rev is for real."

[0075] Exhibit JJ, "Best Of The Four For 04 – Hottest new features from the 2004 lineup", from the November, 2003 issue of SNOWEST magazine, states, "We couldn't imagine going through the 2004 season without the Summit Rev in our stables. As part of a 13-model expansion of the Rev platform, the Summit Rev is the epitome of ideal mountain sled geometry."

[0076] In Exhibit KK, Eric Skogman, an editor of SNOWGOER magazine, states in the December, 2003 issue, "When snowmobile historians look back, they'll see that the Ski-Doo's REV-based machines changed the sport and ushered in a new era of snowmobile design and thinking. It will influence snowmobile engineering for years to come. It is simply that good."

[0077] Exhibit LL, "SNOCROSS – The Evolution of the Sport", from the January, 2004 issue of AMERICAN SNOWMOBILER magazine, states, "We get feedback from consumers who are racing fans wondering, 'why can't we get that on our sled?'" Lusignan said. Other companies experience the same thing. One prime example is Ski-Doo's REV rider platform, which according to Creamer was the second major revolution in the sport of snocross. That revolution has extended the life of the sport."

[0078] Exhibit MM, "SLED NOTES – Real World Reader Reviews", from the February, 2004 issue of AMERICAN SNOWMOBILER magazine, a letter to the magazine states, "I've been on Cat for several years prior to 2003. I wanted to try something totally different, so I decided to get the REV 600 HO with RER. Man, am I ever glad I purchased this sled! I always had a sore back after 200 milers on the Cats, but this sled just kept me wanting more at the end of the day. I love the upright riding position for my back. My knees and quads took a little abuse the first few

rides out, but I got used to the riding position thereafter. [...] Until other manufacturers follow Ski-Doo and build something similar, I'll be riding a REV."

[0079] Exhibit NN, "SUPERTRAX TRIBUTE – BEST VALUE 2005 REV 550 Fan" and "SUPERTRAX TRIBUTE – MOST SIGNIFICANT 2005 RS Vector", from the Fall, 2004 issue of SUPERTRAX INTERNATIONAL magazine, states, "Here's the deal. The REV is rocking the sno-mo-industry. The 'rider forward' concept, as Supertrax aptly coined it, works too well to ignore. [...] In a nutshell, *the REV rules*. [...] [T]he REV platform's unique ability to keep the rider in the middle of the sled in bumps produces, not just an acceptable but, an incredible ride."

[0080] Exhibit NN also states, "What 2005 model made a significant impact on the snowmobile and was the apex of the corner everything turned on? There's a strong argument for Ski-Doo's REV. It began the rider forward, centralized mass trend everyone's scrambling to get a piece of."

[0081] Exhibit OO, "SKI-DOO REV MX Z 600 SDI IS THE 'NEW' INDY?", from the October, 2004 issue of AMERICAN SNOWMOBILER magazine, states, "[T]he rider-forward positioning inherent with the way the sled is engineered makes it easy to enjoy. [...] REV is *our* top choice. [...] With more than 30 years of testing under our belt, we've seen our share of good and bad snowmobiles. Our preference is Ski-Doo's MXZ 600 SDI."

[0082] Exhibit PP, "AMSNOW'S BEST OF 2004", from the October, 2003 issue of AMERICAN SNOWMOBILER magazine, states, "We were not the first to jump on the Ski-Doo Rev bandwagon. Our first experience with last year's prototypes left us wanting more and waiting to see how production models fared. Actual production models were outstanding." Exhibit PP also states, "This new 'rider-forward' concept creates a whole new class of sled that returns the concept of 'FUN' back into snowmobiling." Exhibit PP further states, "We like the ability to quickly rise off the seat due to the rider-forward design."

[0083] Exhibit QQ, "Ski-Doo MX-Z 440 – The Benchmark Scribes Deeper for 2005", from the December/January 2004/2005 issue of SUPERTRAX INTERNATIONAL magazine, states, "At this point in history, the REV has not only dominated but has *definitively* changed the rules. The introduction of the REV's radical centralized mass, rider forward ergonomics changed the sport of snocross and substantially altered the way pilots ride forever."

[0084] Exhibit RR, “SKI-DOO RENEGADE>>Taking the REV off trail”, from the January, 2005 issue of AMERICAN SNOWMOBILER magazine, states, “As any regular reader of American Snowmobiler knows, I’m somewhat biased in my feelings toward the Ski-Doo REV platform. It suits me extremely well. I’m incredibly comfortable on it and thoroughly addicted to the smoothness of the 660cc semi-direct injection twin. But it wasn’t love at first ride, it took a firsthand ‘come to J-Armand Bombardier’ epiphany in the second year of the REV production. Those first year prototypes were unimpressive. The production units were extremely good. And it was personal experiences with a variety of production REVs that sold me.”

[0085] Exhibit SS, from the March 2005 issue of SUPERTRAX INTERNATIONAL magazine, states, “After sampling the 2006 Ski-Doo fleet we were left with a question: What can BRP do to improve the REV next year? Frankly, the only thing we can think of would be whiz-bang instrumentation. Ski-Doo’s traditional analog tach and speedo are now the least sophisticated among the four sledmakers. In terms of tangible improvements in ride and handling, these sleds are now close to if not the benchmarks for performance, handling, ride quality and ergonomics.”

[0086] Exhibit TT, from the December, 2003 issue of SUPERTRAX INTERNATIONAL magazine, states, “Ski-Doo brought the REV to the market in 2003 and set everyone on their heels with new, rider forward ergonomics. Polaris made it through 2003 delivering a revised version of the Pro-XR with handlebars and rider jammed further forward in an attempt to address the stand-up posture racers were now screaming for.”

Evidence of Commercial Success

[0087] Snowmobiles constructed according to the claimed invention, as I understand it, have been commercially successful. Sales of the REV snowmobiles enabled BRP to overtake Polaris, the previous sales leader, and achieve the number one sales position amongst the major snowmobile manufacturers.

[0088] Exhibit UU, “TECH NOTES – Redesigned Mach Z set to blister the lakes”, from the November, 2004 issue of AMERICAN SNOWMOBILER magazine, states, “Ski-Doo is No. 1 in snowmobile marketshare these days, and it got there with bold, high-tech moves. The REV

blind-sided the competition with its radical rider-forward position, and other makers are swallowing hard and running fast to catch up.”

[0089] Exhibit VV, “Ski-Doo REV500SS Trail”, from the December/January 2004/2005 issue of SUPERTRAX INTERNATIONAL magazine, states, “Clearly, the REV is changing the modern snowmobile. More developments from the other OEMs are soon to follow but you can be assured of this: rider forward ergonomics are the REV’s calling card and many buyers are willing to step up and pay more to experience the amazing difference they make.” Exhibit VV concludes, “When it comes to running bumps, there’s no possible way to compare a REV to the competition. In essence, that’s really what we have to say about the 500SS REV. It’s a superb value but, all things considered, it’s the most incomparable among the sleds covered here.”

[0090] Exhibit WW, “SHARPENING THE MACHETE – More Ammo To Stretch the Lead”, from the March, 2005 issue of SUPERTRAX INTERNATIONAL magazine, states, “In the snowmobile industry where brand loyalties are so prevalent, the risk associated with moving in a new direction was huge. Here’s what really underscores how slick the REV’s arrival was: it has become the driving force influencing brand switching in 2005. The REV has been good enough to pry many butts off beloved marques and drag wallets out of pockets in the pursuit of trying something different.”

[0091] Exhibit XX, “SKI-DOO 2006 – ALL REV’D UP”, from the Spring, 2005 issue of SNOWMOBILE BC MAGAZINE, states, “Despite industry sales slipping significantly in 2005, Ski-Doo sales remained constant with 2004 levels this year. This is no doubt thanks to the incredible success of the innovative REV platform. Other OEMs have been clamoring to make certain their lineup has their mass centralized, their riders forward and more upright [...]”

[0092] Exhibit YY, “SIDETRACKS – Rumors: Some True, Some...?”, from AMERICAN SNOWMOBILER magazine, states, “Ski-Doo again has become no. 1 in overall sales, a position that it surrendered to Arctic Cat more than 20 years ago.”

[0093] Exhibit YY also states, “As we enter the 2004 model season, Polaris has relinquished its lead to Ski-Doo.”

[0094] Exhibit YY further states, “What we’re saying is this: Ski-Doo gained market share in a very down market, which is very good. With the REV, Ski-Doo was able to rev up sales, which primarily came at the expense of Polaris. With the poor snow seasons, the sled market has

shrunk and sled makers are stealing sales from each other, not expanding a growing market as happens in consecutive years of good snow winters.” Exhibit YY further states, “With the REV, it’s going to take an equal or better sled from Polaris to steal back buyers it lost last season. One thing we’ll say about the REV chassis, is that it puts F-U-N back into riding a snowmobile!”

The Commercial Success is due to the Advantages of the Claimed Invention

[0095] In my opinion, the commercial success of the REV snowmobiles constructed according to the claimed invention is attributable to the widespread recognition and acceptance of the benefits and advantages provided by snowmobiles constructed according to the claimed invention, as I understand it, and to consumers’ preference of the REV rider positioning over the conventional rider positioning.

[0096] Exhibit BB states, “The basic concept is simple and valid; the rider is the single heaviest component of the machine/rider combination. Moving the rider 12” forward has a far greater effect on centering the mass and reducing the moment of inertia that [sic] any component relocation or re-design.” Exhibit BB concludes, “The exclusive forward-riding position eliminates upper body fatigue and routes the bump impacts to your legs instead of your back. Most anyone from a novice to an expert will instantly recognize the ease of riding and increased fun-factor while on a REV.”

[0097] Exhibit CC states, “For sure, moving the rider into a more upright and forward position set the REV apart from all other current snowmobile designs. This riding position is, in our estimation, fully acceptable and preferred by about 85% of the people we let sample our limited build REV last winter. This confirmed our belief the REV is no sliver-wide market sled. Almost without exception, the new riding position captured the imagination of snowmobilers on their very first sampling.”

[0098] Exhibit GG states, “Our sense is about 15 percent of the people we’ve put on our press REVs have issues with either the ergonomics or the overall feel of the sled when it’s ridden. The other 85% are bananas about the REV and will never go back to a sit down type snowmobile.” Exhibit GG also states, “Certainly some will say Ski-Doo has gone too far with the REV and left themselves no room for a legion of buyers who want a sit-down snowmobile. Maybe that’s a

valid point, maybe it isn't. Here's what we think. The REV is quickly becoming easier to ride for a broader group of buyers."

[0099] Exhibit MM states, "I've been on Cat for several years prior to 2003. I wanted to try something totally different, so I decided to get the REV 600 HO with RER. Man, am I ever glad I purchased this sled! I always had a sore back after 200 milers on the Cats, but this sled just kept me wanting more at the end of the day. I love the upright riding position for my back. My knees and quads took a little abuse the first few rides out, but I got used to the riding position thereafter. [...] Until other manufacturers follow Ski-Doo and build something similar, I'll be riding a REV."

[00100] Exhibit NN states, "Here's the deal. The REV is rocking the sno-mo-industry. The 'rider forward' concept, as Supertrax aptly coined it, works too well to ignore. [...] In a nutshell, *the REV rules*. [...] [T]he REV platform's unique ability to keep the rider in the middle of the sled in bumps produces, not just an acceptable but, an incredible ride."

[00101] Exhibit OO states, "the rider-forward positioning inherent with the way the sled is engineered makes it easy to enjoy. [...] REV is *our* top choice. [...] With more than 30 years of testing under our belt, we've seen our share of good and bad snowmobiles. Our preference is Ski-Doo's MXZ 600 SDL."

[00102] Exhibit PP states, "We were not the first to jump on the Ski-Doo Rev bandwagon. Our first experience with last year's prototypes left us wanting more and waiting to see how production models fared. Actual production models were outstanding." Exhibit PP also states, "This new 'rider-forward' concept creates a whole new class of sled that returns the concept of 'FUN' back into snowmobiling." Exhibit PP further states, "We like the ability to quickly rise off the seat due to the rider-forward design."

[00103] Exhibit VV states, "Clearly, the REV is changing the modern snowmobile. More developments from the other OEMs are soon to follow but you can be assured of this: rider forward ergonomics are the REV's calling card and many buyers are willing to step up and pay more to experience the amazing difference they make." Exhibit VV concludes, "When it comes to running bumps, there's no possible way to compare a REV to the competition. In essence, that's really what we have to say about the 500SS REV. It's a superb value but, all things considered, it's the most incomparable among the sleds covered here."

[00104] Exhibit WW states, “In the snowmobile industry where brand loyalties are so prevalent, the risk associated with moving in a new direction was huge. Here’s what really underscores how slick the REV’s arrival was: it has become the driving force influencing brand switching in 2005. The REV has been good enough to pry many butts off beloved marques and drag wallets out of pockets in the pursuit of trying something different.”

[00105] Exhibit SS states, “After sampling the 2006 Ski-Doo fleet we were left with a question: What can BRP do to improve the REV next year? Frankly, the only thing we can think of would be whiz-bang instrumentation. Ski-Doo’s traditional analog tach and speedo are now the least sophisticated among the four sledmakers. In terms of tangible improvements in ride and handling, these sleds are now close to if not the benchmarks for performance, handling, ride quality and ergonomics.”

[00106] Exhibit XX states, “Despite industry sales slipping significantly in 2005, Ski-Doo sales remained constant with 2004 levels this year. This is no doubt thanks to the incredible success of the innovative REV platform. Other OEMs have been clamoring to make certain their lineup has their mass centralized, their riders forward and more upright [...]”

[00107] Exhibit YY states, “What we’re saying is this: Ski-Doo gained market share in a very down market, which is very good. With the REV, Ski-Doo was able to rev up sales, which primarily came at the expense of Polaris. With the poor snow seasons, the sled market has shrunk and sled makers are stealing sales from each other, not expanding a growing market as happens in consecutive years of good snow winters.” Exhibit YY further states, “With the REV, it’s going to take an equal or better sled from Polaris to steal back buyers it lost last season. One thing we’ll say about the REV chassis, is that it puts F-U-N back into riding a snowmobile!”

[00108] Exhibit ZZ, “Arctic Cat Breaks the Rules – 2004 Sno-Pro Unveiled in April 2003!”, from the Fall, 2003 issue of SUPERTRAX INTERNATIONAL magazine, states, “Ski-Doo so dominated the world of snocross racing they left almost nothing on the table for their competitors to brag about. Without a doubt, the success of the limited build racing REV created unprecedented demand for their 2004 MX-ZX 440 REV.”

[00109] Exhibit ZZ further states, “Ski-Doo’s REV racer was so dominant in competition last season it became clearer every weekend you had to race a rider forward, stand up snowmobile to be competitive. Sure, Arctic Cat won some races and they’re to be commended for doing so but

the writing appeared on the wall very early in the 2002/2003 season. If you wanted to win in snocross, the REV was the best way to do it.”

[00110] Exhibit AAA, “IQ SWITCHBACK 900 – Polaris Pulls the Trigger on 2005’s First Limited Build”, from the December/January 2004/2005 issue of SUPERTRAX INTERNATIONAL magazine describes the Polaris IQ Switchback 900 snowmobile. Exhibit AAA states, “Clearly, no one at Polaris was impressed with Ski-Doo achieving number one market share last season. There’s a palpable sense of anger, mixed with a dose of fierce Northern Minnesota pride permeating the air at the Polaris factory. Losing number one status after leading snowmobile sales for over 15 years has become more than a small issue in the corporate offices of the big ‘P’. We suspect the battle cry in high level management meetings the past few months has been this: Reclaim number one status.”

[00111] Exhibit BBB, “2004 Arctic Cat® 440 Sno Pro”, from the September, 2003 issue of SNOWTECH magazine, states, “Ski-Doo enjoyed great success with their rider-forward position REV-chassis race sleds, so it only makes sense Arctic Cat would respond with a change in rider ergonomics, making the transition to a standing riding position easier.”

[00112] Exhibit CCC also states, “With the success of Ski-Doo’s REV ‘Driver Forward’ position, Arctic knew it had to do a drastic redesign of its chassis. Arctic’s new ‘Rider Forward’ position was accomplished by moving the steering stem forward of the engine. This allows the driver to move as much as 18 inches forward on the machine.”

Evidence of Commercial Success is not due to Advertising or Marketing Efforts

[00113] In my opinion, the commercial success of the REV snowmobiles constructed according to the claimed invention is not due to, for example, excessive advertising, reduced pricing, and/or incentives to buyers of snowmobiles constructed according to the claimed invention. The commercial success of the claimed invention, as I understand it, has not been influenced by excessive advertising.

[00114] I am informed and believe that in 2002, the year prior to the introduction of the REV, a total of \$3.625M was spent advertising BRP snowmobiles.

[00115] I am informed and believe that in 2003, the year the REV was first offered for sale, the total spent on advertising for BRP snowmobiles was \$4.74M. The increase in advertising, however, is normal for the introduction of a new product line.

[00116] I am informed and believe that advertising spending on BRP snowmobiles decreased to \$2.385M in 2004 and further decreased to \$1.875M in 2005.

[00117] The commercial success of the REV is also not due to special pricing or buying incentives. I am informed and believe that in the spring of 2002 and 2003, Bombardier offered a 2nd year engine warranty and \$400 in parts, clothing and accessories to buyers of its non-REV ZX models.

[00118] I am informed and believe that in the fall of 2002 and 2003, BRP offered only the \$400 in parts, clothing and accessories to buyers of its non-REV ZX models.

[00119] I am informed and believe that in the spring of 2003, the first year the REV was offered for sale, only the 2nd year engine warranty was offered to buyers of REV models. No additional parts, clothing or accessories were offered.

[00120] I am informed and believe that in the fall of 2003, no offers were made to buyers of REV models. In the spring of 2004 and 2005, a 2nd year engine warranty and \$300 in parts, clothing and accessories were offered to REV buyers.

[00121] I am informed and believe that in the fall of 2004, REV buyers were offered a 2nd year engine warranty or a free cover, a \$225 value.

[00122] I am informed and believe that in the fall of 2005, REV buyers were offered a 2nd year engine warranty or a free stud kit, a \$215 value.

[00123] Despite the declining advertising budget for 2004 and 2005, and the lack of special incentives for buyers, sales of the REV increased BRP's share of the snowmobile market.

Evidence of Copying by Others

[00124] After the introduction of the REV snowmobiles constructed according to the claimed invention, as I understand it, other snowmobile manufacturers have copied a number of the innovative features of the REV snowmobiles, such as rider-forward positioning and centralized mass. The extent of the copying was such that the design of "rider-forward" snowmobiles similar to the REV snowmobiles was seen as a trend in the industry. To my knowledge, no other OEM

had marketed its snowmobiles as having rider forward ergonomics or centralized mass prior to the introduction of the REV snowmobiles.

[00125] The Polaris MY 2006 brochure, attached as Exhibit DDD, on page 2, states, “Polaris has logged more miles of long-travel, fully coupled technology than any of its competitors. For 2006, we’ve tweaked these geometric relationships and shock valving to seamlessly blend the IQ rear suspension to the centralized mass of the IQ chassis and the IQ front suspension.”

[00126] Polaris’s development of the IQ chassis to centralize the mass of its snowmobiles is, in my opinion, a copy of the claimed invention, as I understand it.

[00127] In Exhibit K, Polaris accentuates the rider forward features of its snowmobiles. The brochure states, “When Rider Select steering is adjusted to the far forward positions 6 or 7, ride mass is moved forward as well. It allows for easy sitting-to-standing transitions and maximum agility in rugged terrain.” In my view, this clearly demonstrates that Polaris is attempting to copy the claimed invention, as I understand it.

[00128] Exhibit Z describes the Polaris ProX2 600 snowmobile and states, “Polaris’ seating position really seems to be a reaction to the Ski-Doo Rev: Move the rider forward. Sit him two-inches taller. All this on the ProX platform that wasn’t conceived to be a rider-forward sled. Looking like a Rev is different than being a Rev. [...] Polaris’ X2 is a repositioned short coupled ProX that’s trying to be a next generation Rev. It isn’t.”

[00129] Exhibit EEE, “TEAM POLARIS”, from the January, 2004 issue of AMERICAN SNOWMOBILER, states, “Like many of its racing counterparts, Polaris has assimilated its new 2004 Pro XR 440 race sled to include rider forward positioning.”

[00130] Exhibit FFF, “SNOCROSS IRON – Checking Out 2005’s Racing Equipment”, from the December/January 2004/2005 issue of SUPERTRAX INTERNATIONAL magazine, states, “There’s no doubt Polaris making a statement about its conversion to centralized mass, rider forward design. [...] Side viewing tells us the rider is jammed up past the middle of the sled and an adjustable handpole (using wrenches) allows the bars to be manipulated for maximum stand-up comfort.”

[00131] Exhibit GGG, “B-B-Baby, Ya Ain’t Seen Nothin’ Yet”, from the December, 2002 issue of SUPERTRAX INTERNATIONAL magazine, states, “Here’s where the 2003 Polaris Pro-X 440 gets its most radical change. Ergonomics. In what appears to be the first response to

Ski-Doo's radical stand-up ergos on the new 440 REV, Polaris has jammed the handlebar pole forward 2 inches on top of last year's 2 inch forward movement. The net effect here is dramatically improved rider positioning for stand-up oriented riders. Certainly there is a positive effect on mass centralization as well with the rider now standing almost directly over the drive axle with legs fully extended. As well, there's enough room for the rider to swing the handlebars while standing, something only the REV is capable of."

[00132] Exhibit AAA states, "Truth is, both the [Polaris] Switchback and the REV, with rider forward ergos, demand very tight powerplant packaging. Better get used to it because more like this will be coming – soon."

[00133] Arctic Cat's MY 2004 brochure, attached as Exhibit HHH, on page 10, states, "Tailor your Firecat's ride to your riding style by choosing from three rear suspension packages." Page 8 of Exhibit HHH states, "The heart of this sled is the laydown engine. It centralizes the sled's mass and lowers the center of gravity for better handling and responsiveness." Page 9 states, "Firecats and Sabercats add a unique dimension by centralizing mass and lowering the center of gravity. The result is better acceleration out of the hole and better responsiveness and handling in the corners."

[00134] Exhibit III, "2005 PREVIEW – ARCTIC CAT", from the March, 2004 issue of SUPERTRAX INTERNATIONAL magazine, states, "The new seat contour enables riders to sit an inch or two higher and about three inches further forward while maximizing the upright position of the Firecat's handlebars. This change has enabled riders to choose between far-forward, REV-style ergos or laid back, conventional positioning."

[00135] In my opinion, the mass centralization of the components of a snowmobile is a concept introduced by the snowmobile of the claimed invention, as I understand it, and the statements from pages 8 and 9 of Exhibit HHH demonstrate that Arctic Cat is copying the claimed invention.

[00136] For MY 2006, Arctic Cat introduced its Crossfire snowmobile, a hybrid of a trail snowmobile and a mountain snowmobile. With respect to the Crossfire, page 21 of the Arctic Cat MY 2006 brochure, attached as Exhibit JJJ, states, "Chassis and suspension are tweaked to the max. In fact the Crossfire is equipped with the same FasTrack Long-Travel System developed from the ZRs."

[00137] Exhibit KKK, "Arctic Cat – Cleaner & meaner", from the Spring, 2005 issue of AMERICAN SNOWMOBILER magazine, describes Arctic Cat's Crossfire snowmobile and states, "Crossfire is based on Cat's popular M-series mountain sled and features a rider-forward design."

[00138] Exhibit KKK also states, "Like other manufacturers, Cat went with a more rider-forward design including mountain handlebars and a reinforced steering post to help riders transition from sitting to standing."

[00139] In the Arctic Cat MY 2006 media kit, attached as Exhibit LLL, with respect to the Crossfire, Arctic Cat states, "Due to the unique seating position in relation to your feet and bend of your knees to other brands, you will notice less body fatigue after riding long distances."

[00140] As discussed in more detail below, the seating position of the Arctic Cat Crossfire copies the claimed invention, as I understand it.

[00141] Exhibit MMM, "READVALVE – TRUTH, LIES, FALSEHOODS, RUMORS, SPECULATION", from the March, 2003 issue of SUPERTRAX INTERNATIONAL magazine, states, "Here's what we think, Roger Scime, Arctic Cat's VP of Engineering is one of the most savvy individuals in this sport. He will not sleep until he knows that Arctic Cat has explored every potential improvement for their race sleds. The one-off pictured here has obviously moved in the direction of the REV chassis with the handlebar pole in front of the engine. Other differences are apparent as well. Clearly, this sled is designed to address the more forward, stand up style ergos pioneered by the REV."

[00142] Exhibit NNN, "Arctic Cat's Sno Pro Shown at Hay Days – Cat's new racer also uses driver forward, engine downward design cues", from the September 9, 2003 issue of MAXIMUM SLED WORLDWIDE magazine, as posted on the www.maximumsled.com website, states, "Much like the Ski-Doo REV, Team Arctic race engineers strived to make the Sno Pro a rider-integrated sled. 'I spent a lot of time riding a REV last year,' said Sno Pro team leader Troy Halverson. 'I wanted to get to know it and then incorporate some of its concepts to the Sno Pro.'"

[00143] Exhibit ZZ states, "They knew there was way too much potential for Ski-Doo to attract talent away from their camp for the coming 2003/2004 race season. Although the 2003 Sno-Pro was a great sled, it wasn't a full stand up design. This meant AC would need to re-think the Sno-

Pro and massage it's [sic] components to morph the package into a full stand-up, rider forward racer."

[00144] Exhibit ZZ also states, "At this writing the [Arctic Cat] Sno-Pro has gone full rider forward. As well, the seat is raised a full six inches to more clearly emulate ergos pioneered by the REV."

[00145] Exhibit BBB states, "Ski-Doo enjoyed great success with their rider-forward position REV-chassis race sleds, so it only makes sense Arctic Cat would respond with a change in rider ergonomics, making the transition to a standing riding position easier."

[00146] Exhibit CCC states, "Could the [Arctic Cat] factory find new stars to carry the banner, and could they come up with a machine to match the newfound handling advantages of Ski-Doo's REV platform?"

[00147] Exhibit CCC also states, "With the success of Ski-Doo's REV 'Driver Forward' position, Arctic knew it had to do a drastic redesign of its chassis. Arctic's new 'Rider Forward' position was accomplished by moving the steering stem forward of the engine. This allows the driver to move as much as 18 inches forward on the machine."

[00148] Exhibit W includes descriptions of the Apex and Attak Yamaha snowmobiles. With respect to the Apex, Exhibit W states, "COMFORTABLE RIDER FORWARD – All-new Apex cockpit brings sled and rider together as a unit by raising and centering the rider into a natural 'action' position. Repositioning forward improves control. Sitting taller lets you read the trail ahead and ready your feet to ride out pitted trails. Secure. Centered. Comfortable." Exhibit W also states, "C. RIDER CONTROL – In the rough, ride location is key. Apex RTX is designed to conquer rough trail. The handlebars are wide and angled for aggressive action. Footboards that fit your boots and a seat that puts you in the middle of the action. Apex RTX makes the moguls back down." With respect to the Attak snowmobile, Exhibit W states, "Balance across the new lightweight saddle while the new rider forward ergos put you in total control."

[00149] In my opinion, the "rider forward" position of the Yamaha snowmobiles as described in Exhibit W demonstrates that Yamaha is copying the claimed invention, as I understand it.

[00150] Exhibit OOO, "YAMAHA – *Born Again!*", from the March, 2005 issue of SUPERTRAX INTERNATIONAL magazine, states, "Yamaha knows there's a market for a more aggressive, rider forward sled in this market. The engineers have moved the rider ahead

about four inches by stuffing and reshaping the front of the seat and adding a tall handlebar riser, effectively moving the rider's hands ahead several inches."

[00151] Exhibit OOO further states, "Yamaha has seen the benefits of rider-forward positioning in this chassis and moved the rider a full six inches from last year's RX-1. The result is a seating position similar to Ski-Doo's Mach Z; a position we feel is near-perfect for the highest percentage of riders seeking comfort while moving further forward."

[00152] Exhibit PPP, "Yamaha Breaks Loose for '06", from the Spring, 2005 issue of AMERICAN SNOWMOBILER magazine, states, "With a rider position similar to the Ski-Doo REV, the new Yamaha dials in the sled's center of gravity with the rider better than any other snowmobile to date. Apex moves the rider six inches farther forward than the RX-1, but not quite as far forward as Ski-Doo's REV."

[00153] Exhibit QQQ, "2006 Apex Mountain", from the Spring, 2005 issue of SNOWMOBILE BC magazine, states, "Rider forward. Yamaha looked elsewhere in the market and found consumers opting for more rider forward and upright positions. The Deltabox II chassis positions the steering column 6" further forward and 4" higher than last year."

[00154] Exhibit CC states, "The REV is not the only snowmobile with centralized mass available this season. Arctic Cat has gone a long way in an attempt to pursue it on the new Firecat series. Even the Yamaha RX-1 moves in this direction with its reversed engine."

[00155] Exhibit NN states, "What 2005 model made a significant impact on the snowmobile and was the apex of the corner everything turned on? There's a strong argument for Ski-Doo's REV. It began the rider forward, centralized mass trend everyone's scrambling to get a piece of."

[00156] Exhibit XX states, "Despite industry sales slipping significantly in 2005, Ski-Doo sales remained constant with 2004 levels this year. This is no doubt thanks to the incredible success of the innovative REV platform. Other OEMs have been clamoring to make certain their lineup has their mass centralized, their riders forward and more upright [...]."

[00157] Exhibit RRR, "Our Crystal Ball – We See It Coming Or Do We?", from the September, 2003 issue of MINNESOTA SNOWMOBILING magazine, states, "Ski-Doo made huge waves in the industry last year with the introduction of the REV chassis MX-Z models and their driver forward ergonomics." Exhibit RRR also states, "Several other manufacturers have

made a move in the direction of driver forward ergonomics this year. The new Polaris Pro-X2 and Pro-XR have new seats to move the driver forward and the Pro-XR has gone even further forward by tilting the steering post still further over the motor. Slated for introduction at Haydays, the new AC Sno Pro snocross stocker goes all the way, moving the steering post in front of the engine, ala REV, and positioning the driver far forward, right over the track suspension front arm."

[00158] Exhibit TT compares the Arctic Cat Sno Pro 440 snowmobile, the Polaris Pro-XR 440 snowmobile, and BRP's Ski-Doo REV 440 snowmobile. With respect to the Arctic Cat Sno Pro 440, the Article states, "With a smooth new steering hoop on top, a centrally positioned post forward about three inches and a new angle approaching the optimum for driver control, the latest Cat Sno Pro embraces the driver forward trend with both paws." With respect to the Polaris Pro-XR 440, the Article states, "Here's another problem. Ski-Doo brought the REV to market in 2003 and set everyone on their heels with new, rider forward ergonomics. Polaris made it through 2003 delivering a revised version of the Pro-XR with handlebars and rider jammed forward in an attempt to address the stand-up posture racers were now screaming for."

Conclusion

[00159] I hereby declare that all statements made herein of my knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statement and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statement may jeopardize the validity of the application or any patents issued from them.

BY: 
Jean-Yves Leblanc

Date: Feb 2, 2009